WHAT IS CLAIMED IS:

1. A multiplexer for packetizing a plurality of encoded data streams, the multiplexer comprising: means for inserting a time stamp required for the reproduction of the encoded data streams into these packets; means for multiplexing said packets;

means for detecting the number of skipped frames from the encoded data stream; and

means for generating a time stamp which is to be inserted into the packets of the encoded data stream on the basis of the detected number of skipped frames.

2. The multiplexer according to claim 1, wherein the number of skipped frames is detected on the basis of the time difference between a current frame of the encoded data stream and a past frames prior to the current frame.

3. The multiplexer according to claim 2, wherein said means for detecting detects a first local time stamp added to the current frame of the encoded data stream and a second local time stamp added to the past frame prior to the current frame.

4. The multiplexer according to claim 1, wherein said means for detecting further includes means for determining whether or not the encoded data stream includes frame skips; and the number of skipped frame are detected only in the case where said means for determining determines that the data streams include

frame skips.

5. A multiplexer comprising: means for packetizing video stream encoded by the encode scheme regulated with MPEG-4 and encoded media stream having time correlation with the video stream, means for inserting a time stamp required for the reproduction of the encoded video stream into these packets; means for multiplexing said packets;

means for detecting the number of skipped frames from the encoded video stream; and

means for generating a time stamp which is to be inserted into the packet of the video stream on the basis of the detected number of skipped frames.

6. A multimedia communication apparatus comprising:

means for individually encoding a plurality of media streams having time correlation to output encoded media streams respectively;

means for packetizing respectively said encoded media streams;

means for detecting the number of skipped frames from the encoded media streams;

means for generating a time stamp on the basis of the number of detected skipped frames;

means for inserting the time stamp into a packet header of the encoded media streams;

means for multiplexing packets of said encoded

media streams so as to output transmission streams; and

means for transmitting the transmission streams to a transmission channel.

7. The multimedia communication apparatus according to claim 6, wherein said means for detecting detects the number of skipped frames on the basis of the time difference between a current frame of the encoded media streams and the past frames prior to the current frame.

8. The multimedia communication apparatus according to claim 7, wherein said means for detecting detects the time difference on the basis of a first local time stamp added to the current frame of the encoded media streams and a second local time stamp added to the past frame prior to the current frame.

9. The multimedia communication apparatus according to claim 6, wherein said means for detecting further comprises means for determining whether or not the encoded media stream include a frame skip and the number of skipped frames is detected only in the case where the means for determining determines that the frame skip is included.

10. A multimedia communication apparatus comprising:

first encode means for encoding video stream in accordance with an encode scheme regulated with an MPEG-4 to output an encoded video stream;

second encode means for other media stream having time correlation with video stream to output an encoded media stream;

packetizing means for packetizing respectively the encoded video stream and the encoded media stream output from said first and second encode means;

detecting means for detecting the number of skipped frames from the encoded video stream output from said first encode means;

first time stamp generation means for generating a first time stamp on the basis of the number of skipped frames detected by said detecting means and inserting the first time stamp into a packet header of the encoded video stream;

second time stamp generation means for generating a second time stamp from the encoded media stream output from the second encode means and inserting the second time stamp into the packet header of the encoded media stream;

multiplexing means for outputting transmission streams by multiplexing packets of the encoded video stream and encoded media stream generated by said packetizing means.

11. A method of generating a time stamp which is applied to a multiplexer, the method comprising the steps of: packetizing a plurality of encoded data streams, inserting a time stamp required for the

reproduction of the encoded data streams into the packets; multiplexing the packets,

detecting the number of skipped frames from the encoded data streams; and

providing a time stamp which is to be inserted into the packets of the encoded data streams on the basis of the number of skipped frames which have been detected.

12. The method for generating a time stamp according to claim 11, wherein the step of detecting the number of skipped frame includes the steps of:

determining a time difference between a current frame of the encoded information data streams and a past frame prior to the current frame; and

detecting the number of skipped frames on the basis of the determined time difference.

13. The method for generating a time stamp according to claim 12, wherein the step of determining a time difference in the step of detecting the number of skipped frame determines the time difference on the basis of a first local time stamp added to the current frame of the encoded data streams, and a second local time stamp added to the past frame prior to the current frame.

14. The method for generating a time stamp according to claim 11, wherein the step of detecting the number of skipped frame further includes the steps of:

determining whether or not the encoded data streams include frame skips; and

detecting the number of skipped frame only in the case where determination is made that the frame skips are included.

15. A method for generating a time stamp which is applied to a multiplexer, the method comprising the steps of: packetizing video stream encoded with an encode scheme regulated with MPEG-4 and encoded media stream having time correlation with the video stream, inserting a time stamp required for the reproduction of the encoded video stream into the packets; multiplexing the packets;

detecting the number of skipped frames from the encoded video stream; and

providing a time stamp for inserting packets of the video stream on the basis of the number of skipped frames which have been detected.